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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,401	04/03/2006	Josef Artelsmair	ARTELSMAIR-6PCT	5900
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COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			EXAMINER NGUYEN, HUNG D	
			ART UNIT 3742	PAPER NUMBER
			MAIL DATE 12/08/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/574,401	Applicant(s) ARTELSMAIR, JOSEF	
	Examiner HUNG NGUYEN	Art Unit 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,3,6-15 and 17-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,3,6-15 and 17-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 15, 17-20, 23-24 and 28-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Jank et al. (US Pat. 6,476,354) (previously cited).

3. Jank et al. discloses a welding apparatus 1 (Fig. 1) including a welding current source 2 (Fig. 1), a control device 4 (Fig. 1), a welding torch 10 (Fig. 1) and a welding wire 13 (Fig. 1), wherein different welding parameters are adjustable via at least one device selected from the group consisting of an input device 22 (Fig. 1) provided on the welding apparatus, an output device 22 (Fig. 1) provided on the welding apparatus, and a remote controller, wherein an adjustment element 47 (Fig. 3) for the adjustment of the heat balance or heat input into the workpiece 16 (Fig. 1) to be worked, via a cyclic combination of at least a first welding process phase and a second welding process phase, is arranged on the at least one device, wherein the first welding process phase has a high energy input and the second welding process phase has a low energy input, and wherein the first welding process phase has a high current phase and a base current phase and the second welding process phase starts during the base current phase. Jank et al. discloses a welding apparatus 1 (Fig. 1) that has an input/output 22

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(Fig. 1) capable of setting and storing of a welding process, various welding parameter (Col. 5, Lines 25-33). Therefore, the adjustment element 47 (Fig. 3) capable of adjusting to any welding process, parameters to a specific program corresponding to user defined.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jank et al. (US Pat. 6,476,354) in view of Hsu (US Pat. 6,717,107) (previously cited).

6. Jank et al. discloses an input/output device 22 (Fig. 1) for adjusting different welding process and parameters. Janks et al. fails to discloses the first welding process phase is a pulse current phase and a cyclic combination of the second welding process phase with the pulse current phase. Hsu discloses the first welding process phase is a pulse current phase and a cyclic combination of the second welding process phase with the pulse current phase (Col. 2, Lines 19-22). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize in Jank et al. to have the first welding process phase is a pulse current phase and a cyclic combination of the second welding process phase with the pulse current phase is adjustable at the at

least one device, as taught by Hsu, for the purpose of controlling to optimize the performance of the welder.

7. Claims 22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jank et al. (US Pat. 6,476,354) in view of Tanaka et al. (US Pat. 4,100,389).

8. Jank et al. discloses an input/output device 22 (Fig. 1) for adjusting different welding process and parameters. Janks et al. fails to discloses the first welding process phase is a spray-arc phase and a cyclic combination of the second welding process phase with the spray-arc phase. Tanaka et al. discloses the first welding process phase is a spray-arc phase and a cyclic combination of the second welding process phase with the spray-arc phase (Col. 3, Lines 45-65). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize in Jank et al. to have the first welding process phase is a spray-arc phase and a cyclic combination of the second welding process phase with the spray-arc phase, as taught by Tanaka et al., for the purpose of the purpose of having a welding process that reduces spatter during bridge rupturing.

9. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jank et al. (US Pat. 6,476,354) in view of Norrish et al. (US Pub. 2002/0008095) (newly cited).

10. Jank et al. discloses an input/output device 22 (Fig. 1) for adjusting different welding process and parameters. Janks et al. fails to discloses the first welding process phase is a spray short-circuit arc welding phase and a cyclic combination of the spray short-circuit arc welding process phase with the second welding process phase.

Norrish et al. discloses the first welding process phase is a spray short-circuit arc

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welding phase and a cyclic combination of the spray short-circuit arc welding process phase with the second welding process phase (Par. 6). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize in Jank et al. to have the first welding process phase is a spray short-circuit arc welding phase and a cyclic combination of the spray short-circuit arc welding process phase with the second welding process phase, as taught by Norrish et al., for the purpose of having a welding process that reduces spatter during bridge rupturing.

11. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jank et al. (US Pat. 6,476,354) in view of Plottier et al. (US Pat. 6,384,376) (previously cited).

12. Jank et al. discloses an input/output device 22 (Fig. 1) for adjusting different welding process and parameters. Janks et al. fails to discloses the first welding process phase is a pulse welding phase and the second welding process phase is a spray-arc welding phase and a cyclic combination of the first welding process phase with the second welding process phase. Plottier et al. discloses the first welding process phase is a pulse welding phase and the second welding process phase is a spray-arc welding phase and a cyclic combination of the first welding process phase with the second welding process phase (Col. 1, Lines 46-58; Claim 1). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize in Jank et al. to have the first welding process phase is a pulse welding phase and the second welding process phase is a spray-arc welding phase and a cyclic combination of the first welding process phase with the second welding process phase is adjustable at the at

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least one device, as taught by Plottier et al., for the purpose of having variety of welding process mode for different materials.

13. Claims 30, 2 and 6-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Artelsmair (WO 00/64620) (previously cited) in view of Hsu et al. (US Pat. 6.717.107).

14. Artelsmair et al. discloses a method for controlling or adjusting a welding process using a melting electrode 13 (Fig. 1) comprising the steps of: (a) igniting an electric arc 15 (Fig. 1); and (b) subsequently carrying out a welding process adjusted according to several different welding parameters (Page 2, Lines 56-59 of English translation) and controlled by a control device 4 (Fig. 1) using a welding current source 2 (Fig. 1).

Artelsmair et al. fails to discloses the welding process comprises at least a first welding process phase and a second welding process phase; wherein the first welding process phase has a high energy input and the second welding process phase has a low energy input resulting from at least one of different material transitions and electric arc types; wherein the first and second welding process phases are cyclically combined during the welding process to influence or control the heat input into a workpiece to be worked; and wherein the first welding process phase has a high current phase and a base current phase and the second welding process phase starts during the base current phase. Hsu et al. discloses the welding process comprises at least a first welding process phase and a second welding process phase (Col. 3, Lines 59- 64); wherein the first welding process phase has a high energy input and the second welding process phase has a low energy input resulting from at least one of different material transitions

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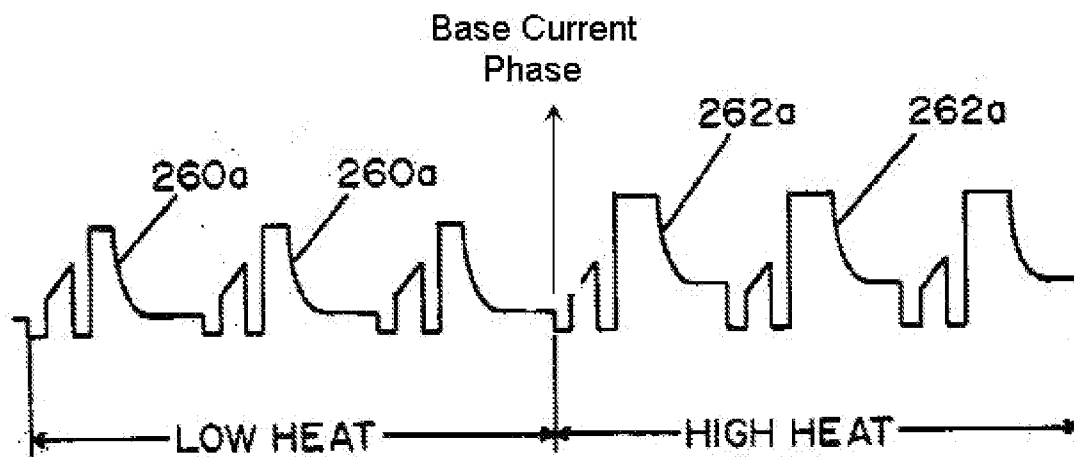
and electric arc types (Col. 1, Line 66 to Col. 2, Line 7); wherein the first and second welding process phases are cyclically combined during the welding process to influence or control the heat input into a workpiece W (Fig. 1) to be worked (Col. 1, Lines 59-62); and wherein the first welding process phase has a high current phase and a base current phase and the second welding process phase starts during the base current phase (Fig. 4 below shows the sample cycle between the low heat follow by the high heat during the base current). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize in Artelsmair to have the welding process comprises at least a first welding process phase and a second welding process phase; wherein the first welding process phase has a high energy input and the second welding process phase has a low energy input resulting from at least one of different material transitions and electric arc types; wherein the first and second welding process phases are cyclically combined during the welding process to influence or control the heat input into a workpiece to be worked; and wherein the first welding process phase has a high current phase and a base current phase and the second welding process phase starts during the base current phase, as taught by Hsu, for the purpose of optimizing the performance of the welder process.

15. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Artelsmair (WO 00/64620) (previously cited) in view of Hsu et al. (US Pat. 6,717,107) and further view of Norrish et al. (US Pub. 2002/0008095).

16. The combined references discloses substantially all features of the claimed invention as set forth above except a spray-arc phase is used as said first welding

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process phase having a high energy input. Norrish et al. discloses a spray-arc phase is used as said first welding process phase having a high energy input (Par. 6). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize in the combined references to have a spray-arc phase is used as said first welding process phase having a high energy input, as taught by Norrish et al., for the purpose of having a welding process that reduces spatter during bridge rupturing.

**FIG. 4**

17. Applicant's arguments with respect to claims 1-29 have been considered but are moot in view of the new ground(s) of rejection.

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18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG NGUYEN whose telephone number is (571)270-7828. The examiner can normally be reached on Monday-Friday, 9M-6PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on (571)272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HUNG NGUYEN/
Examiner, Art Unit 3742
12/5/2009

/Quang T Van/
Primary Examiner, Art Unit 3742